

PRECIPITATION

The first fortnight brought heavy rainfall to most portions of the Gulf and South Atlantic States, and the second week saw much precipitation also in the Ohio Valley, New England, and the greater part of the far Southwest.

The third week of the month was a notable period for precipitation in the extreme Northwest, while from Alabama and northern Georgia westward to eastern Texas heavy rainfall continued. The latter part of the month saw much precipitation in the far West, especially in California; while the middle Gulf region, the Carolinas, New England, and the Missouri and lower Ohio Valleys had considerable amounts.

As a whole, December was a month of liberal precipitation, and the distribution over the country was comparatively good. In the Gulf States, the lower Mississippi Valley, and the interior of the South Atlantic States there was considerably more than normal. The immediate South Atlantic coast had usually less than normal, though sufficient, as a rule, to considerably relieve the intense dryness developed by the fall months. In Tennessee, Mississippi, Louisiana, and eastern Arkansas the heavy December rainfall was detrimental, because of large falls in the months preceding.

From North Dakota to Michigan there was scanty precipitation in the northern portions of the respective States, but about normal or somewhat more than normal in the southern portions. The middle and lower Missouri Valley generally had far more precipitation than normal. At St. Joseph, Mo., this was the wettest December of the past 20 years. The Ohio Valley and the upper Mississippi Valley from northeastern Iowa southward had usually somewhat more precipitation than normal, and the same was true of considerable portions of the lower Lake region and of northern and eastern New England. Central Kansas, western Texas, and eastern New Mexico generally received greater than average amounts. The Pacific coast region and the western half of the Plateau

region had far more than normal, particularly central and southern California.

Deficiencies were noted in central and northeastern Florida, in the middle Atlantic area and southwestern New England, from central Oklahoma to southwestern Missouri, in most of Montana and of western Nebraska, and nearly everywhere near the Rocky Mountain Divide.

SNOWFALL

The features of December snowfall greatly resembled those of November. In the eastern half of the country there was not very much near the Canadian boundary, and farther south none of consequence in the majority of districts where snow is anticipated. Near the Ohio River, along Lake Erie, and from eastern Pennsylvania to southern New England several stations reported no measurable snowfall, and most others found the December total the least of record.

In the middle and northern Plains there was moderate snowfall but usually less than normal except in South Dakota.

In the far West the snowfall at elevated stations was generally much greater than normal, several stations finding it the snowiest December for 10 years or longer. The supply remaining at the end of December in areas where storage toward the stream flow of next summer is important was very satisfactory in most of the States which lie west of the Continental Divide, and in considerable portions of New Mexico and Colorado also.

SUNSHINE AND RELATIVE HUMIDITY

More than the usual amount of sunshine for December prevailed generally in the Southeast, while in the far Southwest less than the average was received. Elsewhere about the normal amount prevailed. The relative humidity was generally above normal except in much of the Northeast, portions of the northern Rocky Mountain region, and the northern Pacific Coast States. However, almost everywhere the departures from the normal were small.

SEVERE LOCAL STORMS, DECEMBER, 1931

[The table herewith contains such data as have been received concerning severe local storms that occurred during the month. A revised list of tornadoes will appear in the Annual Report of the Chief of Bureau]

Place	Date	Time	Width of path (yards)	Loss of life	Value of property destroyed	Character of storm	Remarks	Authority
Shelby County, Tenn.	6-13				\$100,000	Rain and flood	Chief damage to roads	Official, U.S. Weather Bureau.
Block Island, R. I.	7	2:50-3:20 p. m.		3		Wind squall	Sloop and crew lost; steamboat disabled	Do.
South Carolina (western)	8-9					Glaze	Wires and trees broken; communication services impaired considerably	Do.
Mississippi (delta counties)	8-24					Rain and floods	60,000 acres affected	Do.
Texarkana (near), Tex.	11	2 a. m.	200	2	10,000	Tornado	Several buildings damaged or destroyed; 9 persons injured	Do.
Hortman (near), La.	13	1:35 a. m.	50-500	2	8,700	do.	Buildings, crops, and timber damaged; path 3 miles long	Do.
Columbia and Ouachita Counties, Ark.	13	A. m.		1		Tornado and downpour	Scores of buildings wrecked, chiefly at Waldo, Stephens, and Camden; bridges and embankments washed out; 15 injured	Post (Washington, D. C.).
Owings Mills and Rockville, Md.	14	P. m.		2		Wind	Trees and poles blown down; minor damage to other property	Official, U.S. Weather Bureau.
Eureka, Calif., and vicinity	17					do.	Considerable damage to telephone, telegraph, power lines, and buildings	Do.
Simpson County, Miss.	30	P. m.		5	50,000	Probably tornado	50 persons injured; character of damage not reported	Do.
Auburn (near), Ala.	30-31					Wind	Several buildings destroyed; trees uprooted	Do.
Roberson Springs (near), Ala.	30-31			4	4,000	Tornado	Several homes demolished; path 10 miles long	Do.
Montgomery, Ala.	31	2-4 a. m.				Wind	Large windows broken; many telephones put out of order	Do.
Gadsden and adjacent counties, Fla.	31				10,000	Winds	Several large tobacco barns razed; buildings unroofed; slats, telephone, telegraph wires, and pine timber damaged; fruit blown off	Do.
Boone County, Iowa	31					Glaze	750 telephone and telegraph poles blown down; trees broken; highways hazardous	Do.